

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/001,568	NEMECEK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason Proctor	2123	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/18/06.
2. ☒ The allowed claim(s) is/are 1,4-10 and 12-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20060309</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>1/18/06</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                              | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 December 2005 has been entered.

Claims 1-20 were rejected in Office Action dated 26 October 2005. Applicants' response of 22 December 2005 has amended claims 1 and 7 and cancelled claims 2 and 11. Claims 1, 3-10, and 12-20 have been submitted for reconsideration.

Claim 3 has been cancelled by Examiner's Amendment.

Claims 1, 4-10, and 12-20 allowed.

#### ***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Glenn Barnes (42,293) on 10 March 2006.

Art Unit: 2123

The application has been amended as follows:

Claim 3 has been cancelled.

Claim 4, lines 1-2, the word “used” has been deleted and the word --configured-- has been inserted.

Claim 4, line 4, the word “used” has been deleted and the word --configured-- has been inserted.

Claim 17, lines 1-2, the words “the first and second data lines are used to carry data from the emulation device” have been deleted and the words --data is carried from the emulation device over the first and second data lines-- have been inserted.

Claim 19, lines 1-2, the words “the first and second data lines are used to carry data from the emulation device” have been deleted and the words --data is carried from the emulation device over the first and second data lines-- have been inserted.

### *Reasons for Allowance*

2. The following is an examiner’s statement of reasons for allowance:

The following arguments are critical to the allowability of these claims.

(Applicants’ Response, 22 December 2005, page 8) Applicants respectfully assert that Bhandari fails to suggest, teach, or describe the limitations “wherein the programming instructions are sent to the microcontroller residing in the socket using one of the data lines for clock and another of the data lines for the programming instructions” as recited in independent Claims 1 and 7.

(Id., pages 9-10) Applicants respectfully assert that the combination of Bhandari and Szeto fails to suggest, teach, or describe the cited claim language because Szeto also fails to suggest, teach, or describe the limitations “wherein the programming instructions are sent to the microcontroller residing in the socket using one of the data lines for clock and another of the data lines for the programming instructions” as recited in independent Claims 1 and 7. As discussed above, embodiments of the claimed invention disclose the combination of an emulator and a programmer, along with circuitry and mechanisms to enable both tasks to be executed using a single interface.

The following portions of the specification are critical to determining a broad, reasonable interpretation of the claim language, but are not to be interpreted as claim limitations.

(Specification, page 26, lines 13-15) In order to carry out programming functions on a microcontroller mounted in socket 620, the operation of microcontroller 232 should be placed in a mode such that it does not disturb the programming process, i.e., a sleep mode.

(Specification, page 27, lines 12-18) Process 800 starts at 804 after which power is turned on to the pod assembly at 808. The In-circuit Emulation system holds power and reset asserted at 812 and watches for the data0 line to go to a logic high indicating stable power at 816. At 820 the In-circuit Emulation system pulls the data0 line to a logic low at 820 and then releases the reset line while holding the data0 line at a logic low at 824. This sequence of events causes the microcontroller 232 to enter the sleep mode.

The term “pod” and “socket” in the claims should be interpreted consistently with the invention’s disclosed field of technology.

The closest prior art of record teaches an apparatus to automatically differentiate between software update data being loaded into a device and the normal monitoring data that is received from a monitoring probe (US Patent No. 5,564,108, column 2, lines 1-5), however this single interface for monitoring and programming relates to a preferred embodiment of a medical device and contains no teaching of a combined emulator and programmer.

In addition, various examples of emulators are known in the art, as shown by the prior art of record, however as according to Applicants arguments, there is no teaching in the prior art of at least a combined emulator and programmer.

None of these references taken either alone or in combination with the prior art of record disclose an apparatus or method of operating such an apparatus, including:

(Claim 1) “a pod carrying an emulation microcontroller and a socket for programming another microcontroller,” and “wherein the emulation microcontroller can be placed in a sleep mode so that a microcontroller residing in the socket can be programmed by receiving

Art Unit: 2123

programming instructions from the base station without the programming being disturbed by actions of the emulation microcontroller, and wherein the programming instructions are sent to the microcontroller residing in the socket using one of the data lines for clock and another of the data lines for the programming instructions” or

(Claim 7) “a device under test; a programming socket for carrying a device to be programmed,” and “wherein one of the data lines carries programming instructions and another data line carries a clock signal to the device to be programmed during a programming operation, and wherein the data lines are used for communication with the device under test during emulation operations” or

(Claim 13) A method of programming a programmable device, the device residing in a socket of a pod that carries an emulation device used in emulation operations, comprising” “sending a control signal to the pod to place the emulation device into a sleeping state by using an interface configured to couple programming code to the pod and to the programmable device; and programming the programmable device residing in the socket while the emulation device is in the sleeping state”

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicants’ invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

*Conclusion*

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

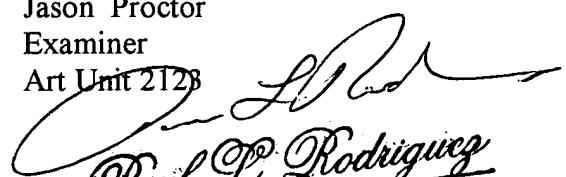
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner  
Art Unit 2123

  
Paul L. Rodriguez  
Primary Examiner  
Art Unit 2125-2123 3/15/06